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(54) Receiver with multiple drive coils

(57) The invention provides a moving armature receiver, such as for a hearing aid, with at least two drive coils adapted to be driven by separate drive signal across different frequency ranges. This is achieved by a frequency dividing network adapted to split an audio input signal into first and second audio signals of predetermined different frequency ranges. In preferred two drive coil versions the frequency ranges overlap below 2-3 kHz, whether only one of the drive coils is active above 2-3 kHz. The drive coil being active in the upper frequency range has a lower impedance than the other drive coil.

Thus, a more suitable effective impedance characteristics can be obtained. This enables an increased maximum acoustic high frequency output and an enhanced high frequency response of the receiver when driven by a low impedance amplifier, such as a class D amplifier. In a preferred embodiment the receiver is adapted to receive a digital audio input signal, the frequency division is performed digitally and two separate digital signals are applied to two separate digital amplifiers each operatively coupled to drive two separate drive coils. The invention also provides a hearing aid output stage adapted to drive a multiple coil moving armature receiver.

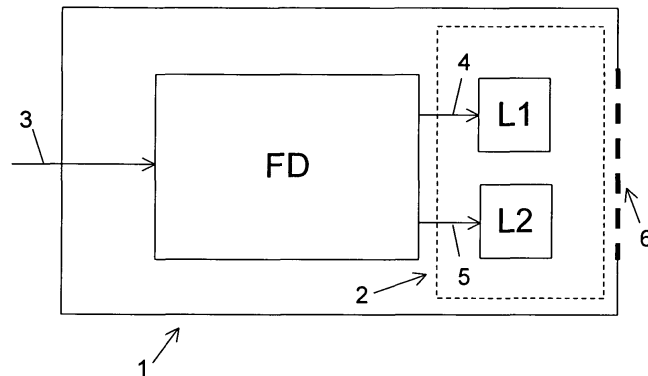


Fig. 1



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			H04R H03G H03F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 29 March 2006	Examiner Zanti, P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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